

AMENDMENTS TO THE CLAIMS

The claims in this listing replaces all prior versions and listings of claims in the application.

Listing of Claims:

1 (currently amended). A recording/reproducing apparatus for receiving digital broadcasting, comprising:

a receiver that receives ~~receiving means for receiving~~ a transport stream containing control data for realizing interactive operations;

a converter that generates ~~converting means for generating~~ a data stream for reproduction containing the control data in accordance with packets as to a desired service selected from the transport stream being received;

a recorder that records ~~recording means for recording~~ the data stream from the ~~converting means~~ converter on a recording medium;

a readout device that reads ~~readout means for reading out~~ the data stream recorded on the medium;

an operation handing ~~means for handing~~ device that handles operations made by an operator; and

a reproducer that reproduces ~~reproducing means for reproducing~~ signals representing contents of services by one of receiving a transport stream from the ~~receiving means~~ receiver when the apparatus is in a playback mode and receiving a transport stream from the readout ~~means~~ device when the apparatus

is in a receive mode, wherein the ~~reproducing means~~ reproducer outputs the reproduced signals;

wherein the playback mode includes a normal playback mode and a special playback mode;

and wherein the ~~reproducing means~~ reproducer carries out an interactive operation in which the ~~reproducing means~~ reproducer outputs an image for performing operations in accordance with control data contained in the transport stream being received and changes the signal representing contents of the services being outputted in accordance with an input of the operator when the apparatus is in the receive mode and the normal playback mode;

and wherein the ~~reproducing means~~ reproducer does not ~~carries~~ carry out the interactive operation when the apparatus is in the special playback mode.

2. (currently amended). The apparatus ~~in accordance with~~ of claim 1, wherein the ~~converting means~~ converter generates a data stream for reproduction containing a data stream for the normal playback and a data stream for the special playback;

and wherein the ~~reproducing means~~ reproducer reproduces signals representing contents of services reproduced under the normal playback mode in accordance with the data stream for the normal playback when the apparatus is in the normal playback mode;

and wherein the ~~reproducing means~~ reproducer reproduces signals representing contents of services reproduced under the special playback mode in accordance with the data stream for the special playback when the apparatus is in the special playback mode.

3 (currently amended). The apparatus ~~in accordance with~~ of claim 2, wherein the ~~converting means~~ converter generates a data stream for special playback not containing the control image for performing operations and a control command, ~~both of~~ the image and the command being used for performing interactive operations;

and wherein the ~~reproducing means~~ reproducer does not displays display the image for performing operations when the apparatus is in the special playback mode.

4 (currently amended). The apparatus ~~in accordance with~~ of claim 2, wherein the ~~converting means~~ converter generates a data stream for special playback containing the image for performing operations and ~~not contains~~ does not contain a control command, ~~both of~~ the image and the control command being used for performing interactive operations;

and wherein the ~~reproducing means~~ reproducer displays the image for performing operations when the apparatus is in the special playback mode.

5 (currently amended). The apparatus ~~in accordance with~~ of claim 2, wherein the ~~converting means~~ converter further includes data for detecting whether or not a version of control data for performing the interactive operations is upgraded into the data stream for special playback;

and wherein the ~~reproducing means~~ reproducer suspends display of the image for performing operations when an upgrade of the control data is detected according to the detecting data during the special playback mode.

6 (currently amended). The apparatus ~~in accordance with~~ of claim 3, wherein the ~~reproducing means~~ reproducer outputs a signal for notifying the a suspension to the operator when a display of the image is suspended thereby.

7 (currently amended). The apparatus ~~in accordance with~~ of claim 2, wherein the ~~converting means~~ converter generates a data stream for special playback which contains the image for performing operations and does not ~~contains~~ contain a control command, ~~both of the image and the~~ control command being used for performing interactive operations;

and wherein the ~~reproducing means~~ reproducer switches ~~whether or not~~ displaying the image for performing operations in accordance with an input of the operator when the apparatus is in the special playback mode.

8 (withdrawn). A digital receiving apparatus for outputting data for recording a desired service by receiving a transport stream comprising:

receiving means for receiving the transport stream being packetized containing control data for realizing interactive operations;

converting means for generating a data stream for reproduction containing the control data in accordance with packets as to a desired service selected from the transport stream being received; and

a recording data output terminal for providing the data stream for reproduction from the converting means to a memory device;

wherein the converting means generates a data stream for reproduction containing a data stream for normal playback and a data stream for special playback, the data stream for special playback not containing a control command used for performing interactive operations.

9. (currently amended). A digital video recording apparatus for recording a desired service by receiving a transport stream₁ comprising:

~~converting means for generating~~ a converter that generates a data stream for reproduction containing control data for realizing interactive operations by selecting packets as to a desired service selected from the transport stream being received; and

~~recording means for recording~~ a recorder that records the stream from the ~~converting means~~ converter on a recording medium;

wherein the ~~converting means~~ converter generates a data stream for reproduction containing a data stream for normal playback and a data stream for special playback, wherein the data stream for special playback does not ~~containing~~ contain a control command used for performing interactive operations.

10 (withdrawn). The apparatus in accordance with claim 8, wherein the converting means generates a data stream for special playback not containing an image for interactive operations.

11 (withdrawn). The apparatus in accordance with claim 8, wherein the converting means generates a data stream for special playback containing an image for interactive operations.

12 (currently amended). The apparatus ~~in accordance with~~ of claim 1, wherein the ~~converting means~~ converter generates a data stream for reproduction containing a data stream for the normal playback and does not ~~containing~~ contain a data stream for the special playback;

and wherein the ~~reproducing means~~ reproducer reproduces signals representing contents of services reproduced under the normal playback mode in accordance with the data stream for the normal playback when the apparatus is in the normal playback mode;

and wherein the ~~reproducing means~~ reproducer reproduces signals representing contents of services reproduced under the special playback mode in accordance with the data stream for the special playback when the apparatus is in the special playback mode.

13 (currently amended). The apparatus ~~in accordance with~~ of claim 12, wherein the ~~reproducing means~~ reproducer generates a service contents signal for special playback ~~not containing~~ that does not contain an image and a control command when the apparatus is in a special playback mode, ~~both of the image and the~~ control command being used for performing interactive operations;

and wherein the ~~reproducing means~~ reproducer does not ~~displays~~ display the image for performing the interactive operations.

14 (currently amended). The apparatus ~~in accordance with~~ of claim 12, wherein the ~~reproducing means~~ reproducer generates a service contents signal for special playback containing an image for interactive operations and does not ~~containing~~ contain a control command for interactive operations when the apparatus is in the special playback mode;

and wherein the ~~reproducing means~~ reproducer displays the image.

15 (currently amended). The apparatus ~~in accordance with~~ of claim 12, wherein the ~~reproducing means~~ reproducer detects whether ~~or not~~ control data

for performing interactive operations is upgraded in the data stream for special playback;

and wherein the ~~reproducing means~~ reproducer suspends display of the image for performing the interactive operations when an upgrade of the control data is detected.

16 (currently amended). The apparatus ~~in accordance with~~ of claim 13, wherein the ~~reproducing means~~ reproducer outputs a signal for notifying the a suspension to the operator when a display of the image is suspended thereby.

17 (withdrawn). In a digital transmitting apparatus for transmitting a transport stream containing control data for realizing interactive operations:

wherein the apparatus transmits the transport stream so as to contain a special stream for special playback.

18 (withdrawn). A recording/reproducing apparatus receiving digital broadcasting comprising:

receiving means for receiving the transport stream containing control data for realizing interactive operations and a special stream for special playback;

converting means for generating a data stream for normal playback containing the control data in accordance with packets as to a desired service

selected from the transport stream being received and a data stream for special playback in accordance with the special stream;

recording means for recording the data stream and the stream for special playback both from the converting means on a recording medium as a data stream for reproduction;

readout means for reading out the stream for reproduction recorded on the medium;

operation handing means for handing operations made by an operator;
and

reproducing means for reproducing a signal representing contents of services by one of receiving a transport stream from the receiving means when the apparatus is in a playback mode and receiving a transport stream from the readout means when the apparatus is in a receive mode, wherein the reproducing means outputs the reproduced signals;

and wherein the reproducing means carries out an interactive operation in which the reproducing means outputs an image for performing operations in accordance with control data contained in the transport stream being received when the apparatus is in the receive mode and the normal playback mode;

and wherein the reproducing means reproduces service contents of the special playback in accordance with the stream for special playback and not carries out the interactive operations when the apparatus is in the special playback mode.

19 (withdrawn). A digital receiving apparatus for outputting data for recording a desired service by receiving a transport stream comprising:

receiving means for receiving the transport stream being packetized containing control data for realizing interactive operations and a special stream for special playback;

converting means for generating a data stream for normal playback containing the control data in accordance with packets as to a desired service selected from the transport stream being received and a data stream for special playback in accordance with the special stream; and

a recording data output terminal for providing the data stream for normal playback and the data stream for special playback both from the converting means to a memory device.

20 (withdrawn). The apparatus in accordance with claim 17, wherein the special stream contains a control command for performing interactive operations.

21 (withdrawn). The apparatus in accordance with claim 17, wherein the special stream not contains a control command for performing interactive operations.

22 (withdrawn). The apparatus in accordance with claim 21, wherein the special stream not contains an image for interactive operations.

23 (withdrawn). The apparatus in accordance with claim 21, wherein the special stream contains an image for interactive operations.

24 (withdrawn). The apparatus in accordance with claim 20, wherein the data stream for special playback not contains a control command for performing interactive operations.

25 (withdrawn). The apparatus in accordance with claim 24, wherein the data stream for special playback stream not contains an image for interactive operations.

26 (withdrawn). The apparatus in accordance with claim 24, wherein the data stream for special playback contains the control command for performing interactive operations.

27 (currently amended). A digital video reproduction apparatus for reproducing services by reading out a stream for reproduction recorded on a recording medium, comprising:

~~a readout means for reading~~ device that reads out the stream for reproduction recorded on the recording medium;

~~an operation handing means for handing~~ device that handles operations made by an operator; and

~~reproducing means for reproducing~~ a reproducer that reproduces a signal representing contents of the services by receiving the stream for reproduction from the readout means device, wherein the ~~reproducing means~~ reproducer outputs the reproduced signals signal;

wherein the ~~reproducing means~~ reproducer outputs an image for performing operations in accordance with control data for performing interactive operations contained in the stream for reproduction, and performs interactive operations so as to change a signal representing contents of the services responding to an input of the operator when the apparatus is in a normal playback mode;

and wherein the ~~reproducing means not performs~~ reproducer does not perform the interactive operations when the apparatus is in a special playback mode.

28 (currently amended). The apparatus ~~in accordance with~~ of claim 27, wherein the ~~reproducing means~~ reproducer does not displays display the image for performing operations when the apparatus is in the special playback mode.

29 (currently amended). The apparatus ~~in accordance with~~ of claim 27, wherein the ~~reproducing means~~ reproducer displays the image for performing operations when the apparatus is in the special playback mode.

30 (currently amended). The apparatus ~~in accordance with~~ of claim 29, wherein the ~~reproducing means~~ reproducer suspends display of the image for performing operations when an upgrade of the control data is detected during the special playback mode.

31 (currently amended). The apparatus ~~in accordance with~~ of claim 28, wherein the ~~reproducing means~~ reproducer outputs a signal for notifying the a suspension to the operator when a display of the image is suspended thereby.

32 (currently amended). The apparatus ~~in accordance with~~ of claim 27, wherein the operator enables to choose whether ~~or not displaying~~ to display the image for performing operations when the apparatus is in the special playback mode.

33 (currently amended). A recording/reproducing apparatus for receiving digital broadcasting, comprising:

~~receiving means for receiving~~ a receiver that receives a transport stream containing control data for realizing interactive operations;

~~converting means for generating~~ a converter that converts a data stream for reproduction containing the control data in accordance with packets as to a desired service selected from the transport stream being received;

~~recording means for recording~~ a recorder that reads the stream from the ~~converting means~~ converter on a recording medium;

~~a readout means for reading~~ device that reads out the stream recorded on the medium;

an operation handing ~~means for handing~~ device that handles operations made by an operator; and

~~reproducing means for reproducing~~ a reproducer that reproduces signals representing contents of services by one of receiving a transport stream from the ~~receiving means~~ reproducer when the apparatus is in a playback mode and receiving a transport stream from the readout ~~means~~ device when the apparatus is in a receive mode, wherein the ~~reproducing means~~ reproducer outputs the reproduced signals;

wherein the playback mode includes a normal playback mode and a special playback mode;

and wherein the ~~reproducing means~~ reproducer carries out an interactive operation in which the ~~reproducing means~~ reproducer outputs an image for performing operations in accordance with control data contained in the transport stream that is being received and changes the signal representing contents of the services being outputted in accordance with an input of the operator when

the apparatus is in the receive mode, the normal playback mode and the special playback mode.

34 (currently amended). The apparatus ~~in accordance with~~ of claim 33, wherein the ~~converting means~~ converter generates a data stream for reproduction containing a data stream for the normal playback and a data stream for the special playback;

and wherein the ~~reproducing means~~ reproducer reproduces signals representing contents of services reproduced under the normal playback mode in accordance with the data stream for the normal playback when the apparatus is in the normal playback mode;

and wherein the ~~reproducing means~~ reproducer reproduces signals representing contents of services reproduced under the special playback mode in accordance with the data stream for the special playback when the apparatus is in the special playback mode.

35 (currently amended). The apparatus ~~in accordance with~~ of claim 34, wherein the ~~converting means~~ converter makes control data for realizing interactive operations equivalent to the data stream for the normal playback so as to include into the data stream for the special playback;

and wherein the ~~reproducing means~~ reproducer carries out an interactive operation equivalent to that carried out in the normal playback mode.

36 (currently amended). The apparatus ~~in accordance with~~ of claim 34, wherein the ~~converting means~~ converter generates the data stream for the special playback by omitting a part of the control data;

and wherein the ~~reproducing means~~ reproducer carries out an interactive operation different from that carried out in the normal playback mode when the apparatus is in the special playback mode.

37 (withdrawn). A digital receiving apparatus for outputting data for recording a desired service by receiving a transport stream comprising:

receiving means for receiving the transport stream containing control data for realizing interactive operations;

converting means for generating a data stream for reproduction containing the control data in accordance with packets as to a desired service selected from the transport stream being received; and

a recording data output terminal for providing the data stream for reproduction from the converting means to a memory device;

wherein the converting means generates a data stream for reproduction containing a data stream for normal playback and a data stream for special playback,

and wherein the control data is contained in both the data stream for normal playback and the data stream for special playback.

38 (currently amended). A digital video recording apparatus for outputting data for recording a desired service by receiving a transport stream, comprising:

~~converting means for generating~~ a converter that generates a data stream for reproduction containing control data for realizing interactive operations by selecting packets as to a desired service selected from the transport stream being received; and

~~recording means for recording~~ a recorder that records the stream from the ~~converting means~~ converter on a recording medium;

wherein the ~~converting means~~ converter generates a data stream for reproduction containing a data stream for normal playback and a data stream for special playback,

and wherein the control data is contained in both the data stream for normal playback and the data stream for special playback.

39 (withdrawn). The apparatus in accordance with claim 37, wherein the converting means makes control data for realizing interactive operations equivalent to the data stream for the normal playback so as to include into the data stream for the special playback.

40 (withdrawn). The apparatus in accordance with claim 37, wherein the converting means generates the data stream for the special playback by omitting a part of the control data.

41 (withdrawn). The apparatus in accordance with claim 33, wherein the converting means generates a data stream for reproduction containing a data stream for the normal playback and not containing a data stream for the special playback;

and wherein the reproducing means reproduces signals representing contents of services reproduced under the normal playback mode in accordance with the data stream for the normal playback when the apparatus is in the normal playback mode;

and wherein the reproducing means reproduces signals representing contents of services reproduced under the special playback mode in accordance with the data stream for the normal playback when the apparatus is in the special playback mode.

42 (withdrawn). The apparatus in accordance with claim 41, wherein the reproducing means carries out an interactive operation equivalent to that carried out in the normal playback mode.

43 (withdrawn). The apparatus in accordance with claim 41, wherein the reproducing means carries out an interactive operation different from that carried out in the normal playback mode when the apparatus is in the special playback mode.

44 (withdrawn). In a digital transmitting apparatus for transmitting a transport stream containing control data for realizing interactive operations:

wherein the apparatus transmits the transport stream so as to contain a special stream for special playback containing a control command for performing interactive operations in addition to a normal stream for normal playback.

45 (withdrawn). A recording/reproducing apparatus receiving digital broadcasting comprising:

receiving means for receiving a transport stream containing both a normal stream including control data for realizing interactive operations and a special stream for special playback;

converting means for generating a data stream for normal playback containing the control data in accordance with the normal stream as to a desired service selected from the transport stream being received and a data stream for special playback in accordance with the special stream;

recording means for recording the data stream and the stream for special playback both from the converting means on a recording medium as a data stream for reproduction;

readout means for reading out the stream for reproduction recorded on the medium;

operation handing means for handing operations made by an operator; and

reproducing means for reproducing a signal representing contents of services by one of receiving a transport stream from the receiving means when the apparatus is in a playback mode and receiving a transport stream from the readout means when the apparatus is in a receive mode, wherein the reproducing means outputs the reproduced signals;

wherein the reproducing means carries out an interactive operation in which the reproducing means outputs an image for performing operations in accordance with control data contained in the transport stream being received when the apparatus is in the receive mode, the normal playback mode and a special playback mode.

46 (withdrawn). A digital receiving apparatus for outputting data for recording a desired service by receiving a transport stream comprising:

receiving means for receiving the transport stream containing both a normal stream including control data for realizing interactive operations and a special stream for special playback;

converting means for generating a data stream for normal playback containing the control data in accordance with the normal stream as to a desired service selected from the transport stream being received and a data stream for special playback in accordance with the special stream; and

a recording data output terminal for providing the data stream for normal playback and the data stream for special playback both from the converting means to a memory device;

wherein the special stream contains a control command for performing interactive operations;

and wherein the data stream for special playback also contains the control command.

47 (withdrawn). The apparatus in accordance with claim 44, wherein the special stream contains control data for performing interactive operations equivalent to that of the normal stream;

and wherein the data stream for special playback also contains control data for performing interactive operations equivalent to that of the normal stream.

48 (withdrawn). The apparatus in accordance with claim 44, wherein the special stream contains control data for performing interactive operations equivalent to that of the normal stream;

and wherein the data stream for special playback contains control data for performing interactive operations in which a part of the control data is omitted.

49 (withdrawn). The apparatus in accordance with claim 44, wherein the special stream contains control data in which a part of the control data included in the normal stream is omitted;

and wherein the data stream for special playback contains control data in which a part of the control data included in the normal stream is omitted.

50 (currently amended). A digital video reproduction apparatus for reproducing services by reading out a stream for reproduction recorded on a recording medium, comprising:

a readout means for reading device that reads out the stream for reproduction recorded on the recording medium;

an operation handing means for handing device that handles operations made by an operator; and

reproducing means for reproducing a reproducer that reproduces a signal representing contents of the services by receiving the stream for reproduction

from the readout ~~means~~ device, wherein the ~~reproducing means~~ reproducer outputs the reproduced signals;

wherein the ~~reproducing means~~ reproducer outputs an image for performing operations in accordance with control data for performing interactive operations contained in the stream for reproduction, and performs interactive operations so as to change a signal representing contents of the services responding to an input of the operator when the apparatus is in a normal playback mode and a special playback mode.

51 (currently amended). The apparatus ~~in accordance with~~ of claim 50, wherein the ~~reproducing means~~ reproducer carries out an interactive operation equivalent to that performed in the normal playback mode when the apparatus is in the special playback mode.

52 (currently amended). The apparatus ~~in accordance with~~ of claim 50, wherein the ~~reproducing means~~ reproducer carries out different interactive operations between the normal playback mode and the special playback mode.

53. The apparatus ~~in accordance with~~ of ~~claim~~ claim 1, wherein the ~~reproducing means~~ reproducer does not ~~uses~~ use control data for interactive operations obtained at a beginning of a special playback mode in a normal playback mode after carrying out the special playback mode if a service identifier

at the beginning of the special playback mode and a service identifier at the end of the special playback mode are do not coincide with each other when playback modes are switched to in a sequence of the normal playback mode, the special playback mode and the normal playback mode.

54 (currently amended). The apparatus ~~in accordance with~~ of claim 1 claim 1, wherein the ~~reproducing means~~ reproducer does not ~~uses~~ use control data for interactive operations obtained at the beginning of a special playback mode in a normal playback mode after carrying out the special playback mode if a version of the control data at a beginning of the special playback mode and a version of the control data at an end of the special playback mode are do not coincide with each other when playback modes are switched to in a sequence of the normal playback mode, the special playback mode and the normal playback mode.

55 (withdrawn). In a digital transmitting apparatus for transmitting a transport stream containing control data for realizing interactive operations:

wherein the apparatus transmits the transport stream so as to contain information whether or not allowing special playback.

56 (currently amended). A recording/reproducing apparatus for receiving digital broadcasting, comprising:

~~receiving means for receiving~~ a receiver that receives a transport stream in which information whether ~~or not allowing~~ to allow special playback for at least a part of ~~or whole of~~ each service is assigned;

~~converting means for generating~~ a converter that generates a data stream for normal playback and a data stream for special playback as a data stream for reproduction containing the control data in accordance with packets as to a desired service selected from the transport stream being received;

~~recording means for recording~~ a recorder that records the data stream for reproduction from the ~~converting means~~ converter on a recording medium;

a readout means for reading device that reads out the stream recorded on the medium; and

~~reproducing means for reproducing~~ a reproducer that reproduces signals representing contents of services by one of receiving a transport stream from the ~~receiving means~~ receiver when the apparatus is in a receive mode, receiving the data stream from the ~~readout means~~ device when the apparatus is in a normal playback mode and receiving the data stream ~~for~~ for special playback from the ~~readout means~~ device when the apparatus is in a special playback mode, wherein the ~~reproducing means~~ reproducer outputs the reproduced signals;

and wherein the ~~converting means~~ converter carries out one of not ~~generates~~ generating the data stream for special playback and ~~bans~~ banning to record the data stream for special playback on the recording medium ~~even the~~

~~data stream being generated~~ when the information bans to carry out special playback.

57 (currently amended). A digital video recording apparatus for recording a desired service by receiving a transport stream₁ comprising:

~~converting means for generating~~ a converter that generates a data stream for reproduction containing a data stream for normal playback and a data stream for special playback by selecting packets as to a desired service selected from the transport stream being received; and

~~recording means for recording~~ a recorder that records the stream from the ~~converting means~~ converter on a recording medium;

wherein the transport stream contains information whether ~~or not allowing~~ to allow special playback;

and wherein the ~~converting means~~ converter carries out one of not generates generating the data stream for special playback and bans banning to record the data stream for special playback on the recording medium ~~even the data stream being generated~~ when the information contained in the transport stream bans to carry out special playback.

58 (currently amended). A recording/reproducing apparatus for receiving digital broadcasting₁ comprising:

~~receiving means for receiving~~ a receiver that receives a transport stream in which information whether ~~or not allowing~~ to allow a special playback for at least a part of ~~or whole of~~ each service is assigned;

~~converting means for generating~~ a converter that generates a data stream for a normal playback and a data stream for the special playback as a data stream for reproduction containing the control data in accordance with packets as to a desired service selected from the transport stream being received;

~~recording means for recording~~ a recorder that records the data stream for reproduction from the ~~converting means~~ converter on a recording medium;

a ~~readout means for reading~~ device that reads out the stream recorded on the medium; and

~~reproducing means for reproducing~~ a reproducer that reproduces signals representing contents of services by one of receiving a transport stream from the ~~receiving means~~ receiver when the apparatus is in a receive mode, receiving the data stream from the ~~readout means~~ device when the apparatus is in a normal playback mode, and receiving the data stream ~~for~~ for special playback from the ~~readout means~~ device when the apparatus is in a special playback mode, wherein the ~~reproducing means~~ reproducer outputs the reproduced signals;

wherein the ~~converting means~~ converter makes the data stream for special playback so as to contain information whether ~~or not allowing~~ to allow special playback therein;

and wherein the ~~reproducing means~~ reproducer does not ~~carries~~ carry out the special playback of a part of the service where the information is indicative of not allowing special playback even when the apparatus is in the special playback mode.

59 (currently amended). A digital video recording apparatus for recording a desired service by receiving a transport stream₁ comprising:

~~converting means for generating~~ a converter that generates a data stream for reproduction containing a data stream for normal playback and a data stream for special playback by selecting packets as to a desired service selected from the transport stream being received; and

~~recording means for recording~~ a recorder that records the stream from the ~~converting means~~ converter on a recording medium;

wherein the ~~converting means~~ converter makes the data stream for the special playback so as to contain information whether ~~or not allowing~~ to allow the special playback therein.

60 (currently amended). A digital video reproduction apparatus for reproducing services by reading out a stream for reproduction recorded on a recording medium₁ comprising:

~~a readout means for reading~~ device that reads out the stream for reproduction containing a data stream for normal playback and a data stream for special playback recorded on the recording medium; and

~~reproducing means for reproducing~~ a reproducer that reproduces a signal representing contents of the services by receiving the stream for reproduction from the readout ~~means~~ device, wherein the ~~reproducing means~~ reproducer outputs the reproduced signals;

wherein the transport stream contains information whether ~~or not allowing~~ to allow the special playback;

and wherein ~~reproducing means~~ the reproducer does not ~~carries~~ carry out ~~the~~ special playback if when the information is indicative of not allowing ~~the~~ special playback, even when the apparatus is in the special playback mode.

61 (currently amended). A recording/reproducing apparatus for receiving digital broadcasting, comprising:

~~receiving means for receiving~~ a receiver that receives a transport stream in which information whether ~~or not allowing~~ to allow a special playback for at least a part of ~~or whole of~~ each service is assigned;

~~converting means for generating~~ a converter that generates a data stream for reproduction in accordance with packets as to a desired service selected from the transport stream being received;

~~recording means for recording~~ a recorder that records the data stream for reproduction from the ~~converting means~~ converter on a recording medium;

~~a readout means for reading~~ device that reads out the stream recorded on the medium; and

~~a reproducing means for reproducing~~ reproducer that reproduces signals representing contents of services by one of receiving a transport stream from the ~~receiving means~~ receiver when the apparatus is in a receive mode, receiving the data stream from the readout ~~means~~ device when the apparatus is in a normal playback mode, and receiving the data stream ~~for~~ for special playback from the readout ~~means~~ device when the apparatus is in a special playback mode, wherein the ~~reproducing means~~ reproducer outputs the reproduced signals;

wherein the ~~converting means~~ converter makes the data stream for reproduction so as to contain information whether ~~or not allowing~~ to allow the special playback therein;

and wherein the ~~reproducing means~~ reproducer does not ~~carries~~ carry out the special playback of a part of the service where the information is indicative of not allowing the special playback when the apparatus is in the special playback mode.

62 (currently amended). A digital video recording apparatus for recording a desired service by receiving a transport stream, comprising:

~~converting means for generating~~ a converter that generates a data stream for reproduction by selecting packets as to a desired service selected from the transport stream being received; and

~~recording means for recording~~ a recorder that records the stream from the ~~converting means~~ converter on a recording medium;

wherein the ~~converting means~~ converter makes the data stream for reproduction so as to contain information whether ~~or not allowing~~ to allow a special playback therein.

63 (currently amended). A digital video reproduction apparatus for reproducing services by reading out a stream for reproduction recorded on a recording medium, comprising:

a readout means ~~for reading~~ device that reads out the stream for reproduction recorded on the recording medium; and

~~reproducing means for reproducing~~ a reproducer that reproduces a signal representing contents of the services by receiving the stream for reproduction from the readout means device, wherein the ~~reproducing means~~ reproducer outputs the reproduced signals;

wherein the transport stream contains information whether ~~or not allowing~~ to allow a special playback;

and wherein ~~reproducing means~~ the reproducer does not carries carry out the special playback if when the information is indicative of not allowing the special playback, even when the apparatus is in the special playback mode.

64 (currently amended). A recording/reproducing apparatus for receiving digital broadcasting, comprising:

~~receiving means for receiving~~ a receiver that receives a transport stream containing control data for realizing interactive operations;

~~converting means for generating~~ a converter that generates a data stream for reproduction containing the control data in accordance with packets as to a desired service selected from the transport stream being received;

~~recording means for recording~~ a recorder that records the stream from the ~~converting means~~ converter on a recording medium;

a readout ~~means for reading~~ device that reads out the stream recorded on the medium;

an operation handing ~~means for handing~~ device that handles operations made by an operator; and

~~reproducing means for reproducing~~ a reproducer that reproduces signals representing contents of services by one of receiving a transport stream from the ~~receiving means~~ receiver when the apparatus is in a playback mode and receiving a transport stream from the readout ~~means~~ device when the apparatus

is in a receive mode, wherein the ~~reproducing means~~ reproducer outputs the reproduced signals;

wherein the playback mode includes a normal playback mode and a pause mode;

and wherein the ~~reproducing means~~ reproducer carries out an interactive operation in which the ~~reproducing means~~ reproducer outputs an image for performing operations in accordance with control data contained in the transport stream ~~being~~ that is received and changes the signal representing contents of the services being outputted in accordance with an input of the operator when the apparatus is in the receive mode and the normal playback mode;

and wherein the ~~reproducing means~~ reproducer ~~stop~~ stops carrying out the interactive operation when the apparatus is in the pause mode.

65 (currently amended). A digital video reproduction apparatus for reproducing services by reading out a stream for reproduction recorded on a recording medium, comprising:

a readout means for reading device that reads out the stream for reproduction recorded on the recording medium; and

~~reproducing means for reproducing~~ a reproducer that reproduces a signal representing contents of the services by receiving the stream for reproduction from the readout ~~means~~ device, wherein the ~~reproducing means~~ reproducer outputs the reproduced signals;

wherein the ~~reproducing means~~ reproducer outputs an image for performing operations in accordance with control data for performing interactive operations contained in the stream for reproduction, and performs interactive operations so as to change a signal representing contents of the services responding to an input of the operator when the apparatus is in a normal playback mode;

and wherein the ~~reproducing means~~ reproducer suspends the interactive operations when the apparatus is in a pause mode.

66 (currently amended). The apparatus ~~in accordance with~~ of claim 64, wherein ~~reproducing means~~ the reproducer suspends display of the image when the apparatus is in the pause mode.

67 (currently amended). The apparatus ~~in accordance with~~ of claim 64, wherein the ~~reproducing means keep~~ reproducer keeps displaying the image when the apparatus is in the pause mode.

68 (currently amended). The apparatus ~~in accordance with~~ of claim 64, wherein the ~~reproducing means~~ reproducer restarts the interactive operations when the pause mode is released.

69 (currently amended). A recording/reproducing apparatus for receiving digital broadcasting, comprising:

~~receiving means for receiving~~ a receiver that receives a transport stream containing control data for realizing interactive operations;

~~converting means for generating~~ a converter that generates a data stream for reproduction containing the control data in accordance with packets as to a desired service selected from the transport stream being received;

~~recording means for recording~~ a recorder that records the stream from the ~~converting means~~ converter on a recording medium;

~~a readout means for reading~~ device that reads out the stream recorded on the medium;

~~an operation handing means for handing~~ device for handling operations made by an operator; and

~~reproducing means for reproducing~~ a reproducer that reproduces signals representing contents of services by one of receiving a transport stream from the ~~receiving means~~ receiver when the apparatus is in a playback mode and receiving a transport stream from the readout ~~means~~ device when the apparatus is in a receive mode, wherein the ~~reproducing means~~ reproducer outputs the reproduced signals;

wherein the playback mode includes a normal playback mode and a pause mode;

and wherein the ~~reproducing means~~ reproducer carries out an interactive operation in which the ~~reproducing means~~ reproducer outputs an image for performing operations in accordance with control data contained in the transport stream ~~being~~ that is received and changes the signal representing contents of the services being outputted in accordance with an input of the operator when the apparatus is in the receive mode and the normal playback mode;

and wherein the ~~reproducing means~~ reproducer carries out the interactive operation even when the apparatus is in the pause mode.

70 (currently amended). A digital video reproduction apparatus for reproducing services by reading out a stream for reproduction recorded on a recording medium, comprising:

a ~~readout means for reading~~ device that reads out the stream for reproduction recorded on the recording medium;

an ~~operation handing means for handing~~ device that handles operations made by an operator; and

~~reproducing means for reproducing~~ a reproducer that reproduces a signal representing contents of the services by receiving the stream for reproduction from the ~~readout means~~ device, wherein the ~~reproducing means~~ reproducer outputs the reproduced signals;

wherein the ~~reproducing means~~ reproducer outputs an image for performing operations in accordance with control data for performing interactive

operations contained in the stream for reproduction, and performs interactive operations so as to change a signal representing contents of the services responding to an input of the operator when the apparatus is in a normal playback mode;

and wherein the ~~reproducing means~~ reproducer carries out the interactive operation even when the apparatus is in the pause mode.

71 (currently amended). The apparatus ~~in accordance with~~ of claim 69, wherein the ~~reproducing means~~ reproducer carries out the interactive operation upon receipt of the input even when the apparatus is in the pause mode.

72 (currently amended). The apparatus ~~in accordance with~~ of claim 69, wherein the ~~reproducing means~~ reproducer completes the operations under the control data being carried out at a beginning of the pause mode and does not ~~accepts~~ accept further inputs input when the apparatus is in the pause mode.

73 (currently amended). The apparatus ~~in accordance with~~ of claim 69, wherein the ~~reproducing means~~ reproducer does not ~~carries~~ carry out the operation under the control data depending on a time when the apparatus is in the pause mode.

74 (currently amended). The apparatus ~~in accordance with~~ of claim 69, wherein the ~~reproducing means~~ reproducer carries out processing for external communications.

75 (currently amended). A computer readable program storage medium ~~describing that describes~~ operations of a CPU for realizing ~~any one of the apparatuses in accordance with~~ the apparatus of claim 1, which comprises:

a converting circuit ~~for selecting~~ that selects packets as to a desired service from the transport stream being received and ~~outputting~~ outputs the packets as a stream for reproduction;

a recording part ~~for recording~~ that records the stream from the converting circuit on a recording medium;

a readout part ~~for reading~~ that reads out the stream for reproduction recorded on the recording medium; and

a decoder ~~for fetching~~ that fetches a signal representing contents of the services; and

wherein, the CPU ~~for at least controlling~~ controls operations of the decoder.

76 (withdrawn). A data storage medium reproduced with a digital video reproduction apparatus;

wherein the data storage medium records a stream for reproduction containing a normal stream for normal playback and a special stream, which includes data, selected from the normal stream.

77 (withdrawn). A carrier wave for carrying a transport stream thereon, wherein the transport stream contains a stream for reproduction containing a normal stream for normal playback and a special stream, which includes data, selected from the normal stream.

78 (withdrawn). A digital video reproduction method for reproducing services by reading out a stream for reproduction recorded on a recording medium, comprising the steps of:

- reading out the stream for reproduction recorded on the recording medium;
- carrying out an interactive operation, in which an image for performing operations is outputted in accordance with control data for interactive operation contained in the stream and changing a signal representing contents of the services being outputted in accordance with an input of the operator, in accordance the stream when the signal representing contents of the services is reproduced during a normal playback mode; and

- not carrying out the interactive operation ~~when~~ during a special playback mode.

79 (withdrawn). A digital video reproduction method for reproducing services by reading out a stream for reproduction recorded on a recording medium, comprising the steps of:

reading out the stream for reproduction recorded on the recording medium;
and

carrying out an interactive operation, in which an image for performing operations is outputted in accordance with control data for interactive operation contained in the transport and changing a signal representing contents of the services being outputted in accordance with an input of the operator, in accordance the stream when the signal representing contents of the services is reproduced and outputted during both a normal playback mode and a special playback mode.

80 (withdrawn). A digital video reproduction method for reproducing services by reading out a stream for reproduction recorded on a recording medium, comprising the steps of:

reading out the stream for reproduction recorded on the recording medium;
and

carrying out an interactive operation, in which an image for performing operations is outputted in accordance with control data for interactive operation contained in the stream and changing a signal representing contents of the services being outputted in accordance with an input of the operator, in

accordance the stream when the signal representing contents of the services is reproduced and outputted during a normal playback mode; and
suspending the interactive operation during a pause mode.

81 (withdrawn). A digital video reproduction method for reproducing services by reading out a stream for reproduction recorded on a recording medium, comprising the steps of:

reading out the stream for reproduction recorded on the recording medium;
and

carrying out an interactive operation, in which an image for performing operations is outputted in accordance with control data for interactive operation contained in the stream and changing a signal representing contents of the services being outputted in accordance with an input of the operator, when the signal representing contents of the services is reproduced and outputted in accordance the stream during a normal playback mode; and

carrying out the interactive operation during a pause mode.